

Supplementary Material

The transcription factor Hobit identifies human cytotoxic CD4⁺ T cells

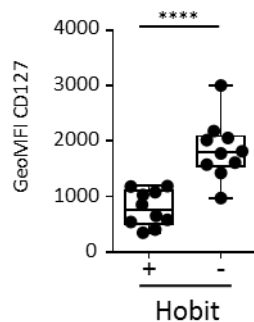
Anna E. Oja^{#1}, Felipe A. Vieira Braga^{#1}, Ester B. M. Remmerswaal^{2,3}, Natasja A. M. Kragten¹, Kirsten M.L. Hertoghs², Jianmin Zuo⁴, Paul Moss⁴, René A.W. van Lier¹, Klaas P. J. M. van Gisbergen^{1,2###}, Pleun Hombrink^{1##*}

* Correspondence:

Dr. Klaas P.J.M. van Gisbergen and Dr. Pleun Hombrink
k.vangisbergen@sanquin.nl and p.hombrink@sanquin.nl

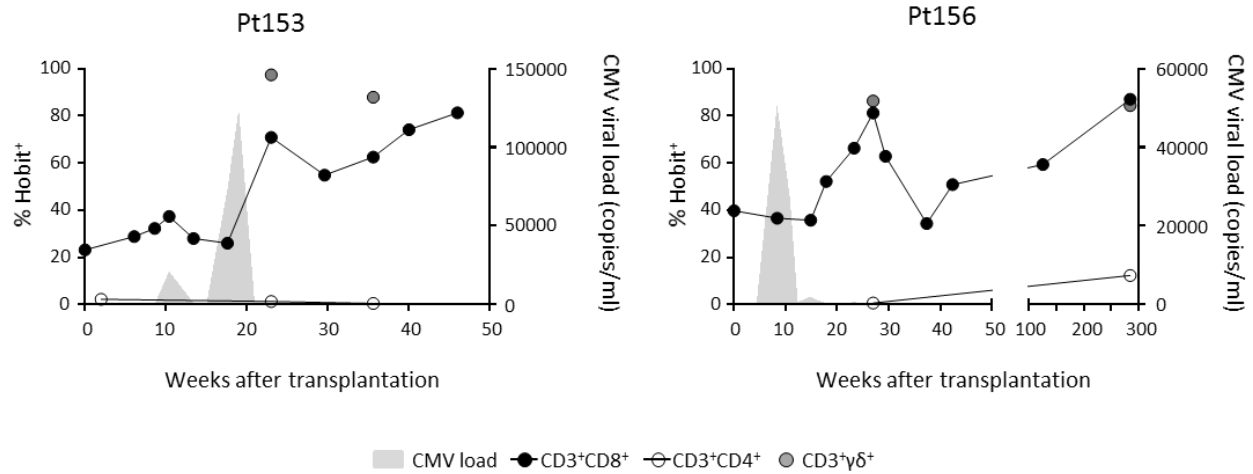
1 Supplementary Figures

1.1 Supplementary Figure 1



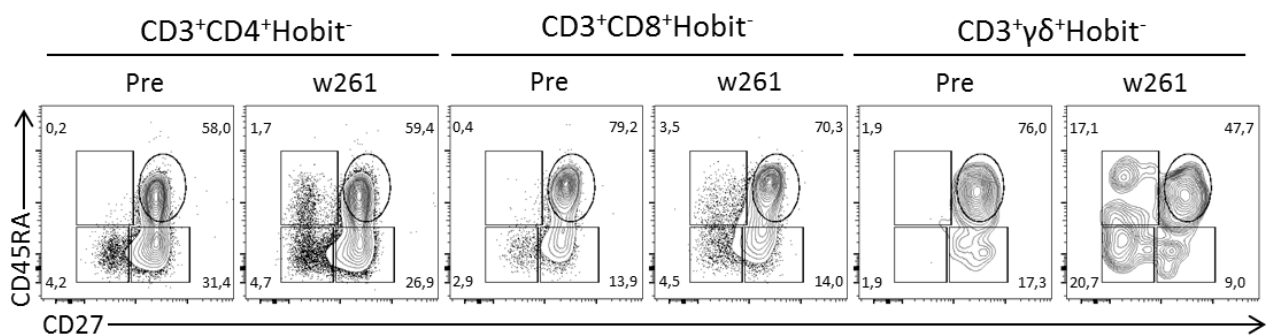
Suppl Figure 1: **Geometric mean fluorescence intensity of CD127 by Hobit⁺ and Hobit⁻ CD4⁺ T cells.** The geometric mean fluorescence intensity of CD127⁺ cells was quantified for the Hobit⁺ and Hobit⁻ non-naïve CD4⁺ T cells. $n = 10$. **** $p < 0.0001$; paired T test.

1.2 Supplementary Figure 2



Suppl Figure 2: **Expansion of Hobit⁺ T cells over time after primary hCMV infection.** The line graphs show the time course analysis of Hobit expression in CD4⁺, CD8⁺, and $\gamma\delta$ ⁺ T cells after kidney transplantation in pt153 and pt156. Left y-axis depicts the percentage of Hobit⁺ cells within the CD4⁺ (white), CD8⁺ (black), and $\gamma\delta$ ⁺ (grey) T cell populations. The CD4⁺ and $\gamma\delta$ ⁺ T cells were analyzed at three and two time points, respectively. The CD8⁺ expansion was measured more frequently. Viral loads (determined by qPCR) (light grey) are depicted on the right y-axis as copies of hCMV per ml of blood.

1.3 Supplementary Figure 3



Suppl Figure 3: **Phenotype of Hobit⁻ T cells before and after primary hCMV infection.** Distribution of CD45RA/CD27 expression, shown with contour plots, by Hobit⁻ CD4⁺, CD8⁺ and $\gamma\delta$ ⁺ T cells was characterized prior to transplantation and 261 weeks post transplantation of hCMV infection for pt333.